

What is claimed is:

1. An article for establishing an adhesive seal between two substrates,
comprising:

- 5 (a) A photo-activated, epoxy-containing bulk layer having a first
 major surface, and
 (b) a photo-activated, epoxy-containing adhesive layer bonded to the
 first major surface of said bulk layer, wherein upon photo-activation, said
 bulk layer has a different curing rate from said adhesive layer.

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2. An article as recited in claim 1, wherein the curing rate of said bulk layer is
greater than the curing rate for said adhesive layer.

- 15 3. An article as recited in claim 2, wherein said bulk layer includes a second
 major surface, said adhesive layer includes an outer exposed surface, and the curing
 rate of epoxy containing material at the outer exposed surface is equal to or slower
 than the curing rate of epoxy-containing material at the second major surface.

- 20 4. An article as recited in claim 1, wherein said at least one bulk layer
 includes a second major surface bondable to a substrate.

5. An article as recited in claim 1, wherein said adhesive layer includes an
outer exposed surface bondable to a substrate.

- 25 6. An article as recited in claim 1, wherein said difference in curing rate of
 said bulk layer and said adhesive layer is achieved by adjusting one or more
 parameters selected from the group consisting of photo-initiators, concentration of
 photo-initiators, absorption wavelength of photo-initiators, extinction coefficient,
 sensitizers, inhibitors, accelerators epoxy type, and a thickness of said bulk layer, said
30 adhesive layer or both.

7. An article as recited in claim 1, wherein said adhesive layer has a thickness in the range of about 0.0125 mm to about 0.25 mm.

8. An article as recited in claim 7, wherein the total thickness of said article is in the range of about 0.5 mm to about 17 mm.

9. An article as recited in claim 1, wherein said photo-initiators are selected from the group consisting of iodonium salts, sulfonium salts, metallocene salts, or combinations thereof.

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10. An article as recited in claim 1, wherein said at least one bulk layer has a different photo-initiator than a photo-initiator for said adhesive layer.

11. An article for establishing a seal between two substrates, comprising:

- 15 (a) a conformable, compressible, melt flow-resistant foam core;
- (b) a photo-activated, epoxy-containing bulk layer having a first and second major surface, said foam core bonded to the second major surface of said bulk layer; and
- 20 (c) an epoxy-containing adhesive layer bonded to the first major surface of said bulk layer, wherein upon photo-activation, said bulk layer has a different curing rate than said adhesive layer.

12. An article as recited in claim 11, wherein each of said bulk layer and said adhesive layer comprises a blend of (a) an epoxy resin, (b) a resin selected from the group consisting of polyacrylates, ethylene vinyl acetates, polyesters, vinyl acetates, polycaprolactones and combinations thereof, and each layer includes a photo-initiator.

13. An article as recited in claim 11, wherein said bulk layer and said adhesive layer contain epoxy-containing compositions that substantially retain their shape when heated to a temperature greater than the softening temperature of the compositions, but less than about 200 °C, until photo-activated.

14. An article as recited in claim 11, wherein said foam core comprises a foam selected from the group consisting of acrylic, urethane and polyolefin foams.

5 15. An article as recited in claim 11, wherein said foam core comprises a pressure sensitive adhesive.

16. An article as recited in claim 11, wherein said adhesive layer has an exposed outer surface bondable to a substrate.

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17. An article as recited in claim 11, wherein said foam core has an exposed surface suitable for bonding to one substrate.

18. A construction comprising an article as recited in claim 11, wherein said
15 bulk layer is bonded to a glass substrate.

19. The construction as recited in claim 18, wherein said glass substrate is a windshield adapted for use in a motor vehicle.

20 20. The construction as recited in claim 18, further comprising another substrate comprising metal wherein said adhesive layer is bonded to said metal.